

# Appendix I

## National Undersea Research Program Projects Funded for Fiscal Years 1995-1997

### Healthy Oceans

#### 1995 Florida Development Program: Keys-wide Monitoring of Coral Reef Health\*

Miller, Steven L.  
(University of North Carolina at Wilmington)

#### A Preliminary Investigation of Near Bottom Hydrographic Processes Affecting Sediment Transport on the New York Bight Shelf\*

Glenn, Scott M.  
(Rutgers, The State University of New Jersey)

#### A Synoptic Survey of Coral Reefs in the Florida Keys National Marine Sanctuary\*

Ogden, John C.  
(Florida Institute of Oceanography)

#### A Synoptic Survey of Coral Reefs in the Florida Keys National Marine Sanctuary and off Palm Beach, FL\*

Hanisak, Dennis M.  
(Harbor Branch Oceanographic Institution)

#### A Systematic Revision of the Caribbean Mussidae (*Scleractinia*)

Danaher, Deborah  
(University of Maryland)

#### Acquisition of Continuous, *In Situ*, Chlorophyll Fluorescence at the LEO-15 Site\*

Asper, Vernon L.  
(University of Southern Mississippi, Stennis Space Center)

#### Algal Species Diversity and Composition as a Factor of Depth and Season in Deep Insular Reef Slope in the Bahamas

Ballantine, David L.  
(University of Puerto Rico)

#### An Experimental Test of the Onshore-Offshore Predation Hypothesis

Aronson, Richard B.  
(Dauphin Island Sea Lab)

#### Analysis and Interpretation of Video Transect Data From Coral Reefs in the Vicinity of Lee Stocking Island, Bahamas

Bright, Thomas J.  
(Texas A&M University)

#### Bacterial Production in the Benthic Boundary Layer of Green Bay and Lake Michigan

Cuhel, Russell L.  
(University of Wisconsin-Milwaukee)

#### Beach Erosion and Hurricane Protection Plan for Onslow Beach, NC

Cleary, William J.  
(University of North Carolina at Wilmington)

#### Between Reef Comparison of Internal Wave Impacts\*

Leichter, James J.  
(Stanford University)

#### Bioerosion in Deep Reef Environments and Microbial Endolithic Organisms as an Environmental Factor

Kiene, William E.  
(J.W. Goethe University)

#### Bioerosion of Coral Reefs\*

Feingold, Joshua S.  
(Nova Oceanographic Center)

#### Bioerosion, Sediment Production, and Storm Dynamics in Onslow Bay

Riggs, Stanley R.  
(East Carolina University)

#### Biogeochemistry of Manganese and Iron Reduction in Shelf Sediments

Reimers, Clare E.  
(Rutgers, The State University of New Jersey)

#### Biological Processes on Deep and Shallow Coral Reefs\*

Reaka-Kudla, Marjorie  
(University of Maryland, College Park)

#### Bottom Boundary Layer Dynamics and Sediment Transport Observations of Velocity and Sediment Distributions\*

Agrawal, Yogesh C.  
(Sequoia Scientific Inc.)

#### Bottom-up Controls of Coral Reef and Seagrass Community Structure

Lapointe, Brian  
(Harbor Branch Oceanographic Institution)

#### Carbon Budgets, Growth and Sexual Reproduction by Halimeda Across a Depth Gradient\*

Smith, Celia  
(University of Hawaii)

#### Carbonate Environments: Microbial Ecology and Bacterial Calcification Studies

Thompson, Joel B.  
(Eckerd College)

#### Cargo Sweeping and Zebra Mussels: Quantitative Characteristics of Sonar Targets in Lake Ontario

Flood, Roger D.  
(State University of New York at Stony Brook)

#### Chemical Ecology of Caribbean Demosponges\*

Pawlik, Joseph  
(University of North Carolina at Wilmington)

#### Chemical Orientation in the Marine Environment: High Resolution Measurement of Marine Chemical Signals and Quantifications of Chemical Orientation by Benthic and Pelagic Organisms

Moore, Paul A.  
(Bowling Green State University)

#### Chronology and Isotope Geochemistry of Ground Waters in the Florida Keys and Offshore Areas\*

Bohlke, Dr. John K.  
(U.S. Geological Survey)

#### Coastal Erosion and Shoreface Processes off North Carolina

Cleary, William J.  
(University of North Carolina at Wilmington)

#### Comparative Taphonomy of Life, Death and Fossil Caribbean Coral Assemblages, Key Largo, Florida\*

Greenstein, Benjamin  
(Smith College)

#### Controls on Infaunal Community Structure at Pacific Methane Seeps

Levin, Lisa A.  
(University of California, San Diego)

#### Coral Bleaching: Mode of Release of Zoxanthellae

Muscantine, Leonard  
(University of California, Los Angeles)

#### Coral Culture at Lee Stocking Island: A Feasibility Study

Mueller, Erich M.  
(Mote Marine Laboratory)

#### Coral Recruitment Processes at Conch Reef\*

Smith, Struan  
(Bermuda Biological Station)

#### Coral Reef Monitoring

Lang, Judith C.  
(University of Texas, Austin)

#### Cross-Shore Sediment Transport off a Replenished Beach: Carolina Beach/Ft. Fisher, North Carolina

Cleary, William J.  
(University of North Carolina at Wilmington)

#### Deepwater Crevicular Fauna of the 'Wall' at Lee Stocking Island

Iliffe, Thomas M.  
(Texas A&M University at Galveston)

#### Denitrification and Microbial Dynamics in Continental Shelf Sediments: Use of *In Situ* Methods\*

Seitzinger, Sybil P.  
(Rutgers, The State University of New Jersey)

\* These projects included cooperation with the National Marine Sanctuary Program, the National Estuarine Research Reserve, or the National Park Service.

Note: Lead principal investigators only are noted here.

**Determination of Groundwater-Flow Direction and Rate Beneath Florida Bay, the Florida Keys and Reef Tract\***

Shinn, Eugene A.  
(U.S. Geological Survey)

**Determination of Quantitative Relationships Between Coral Color**

Maguire, Bassett  
(University of Texas at Austin)

**Development of Nationally Consistent Reef Resource Monitoring Programs Among Sanctuary Sites\***

Score, David  
(Gray's Reef National Marine Sanctuary)

**Developmental Undersea Research in the South Atlantic Bight, 1995\***

Potts, Thomas  
(NURC/UNCW)

**Differential Effects of UV-A and UV-B on Recovery and Acclimation of Reef Corals Stressed by Ultraviolet Light\***

Wellington, Gerard M.  
(University of Houston)

**Discriminating Endemic from Opportunistic Predators at Hydrothermal Vents**

Voight, Janet R.  
(The Field Museum)

**Distribution and Abundance of *Codium isthmocladum* off SE Florida**

Carlson, Paul R.  
(Florida Marine Research Institute)

**Distribution and Effects of Ship-Derived Ash and Coal Wastes: A Geochemical and Ecological Study of Sedimentary Deposits in Western Lake Ontario**

Brownawell, Bruce J.  
(State University of New York, Stony Brook)

**Dynamics of Dissolved Organic Carbon at LEO-15**

Wainwright, Sam C.  
(Rutgers, The State University of New Jersey)

**Early Succession, Persistence and Seep Affinities of Whale-fall Communities on the Northeast Pacific Slope**

Smith, Craig R.  
(University of Hawaii/Oceanography)

**Ecology and Physiology of *Beggiatoa* sp. at Monterey Canyon Seeps: A Model of Novel, Sulfide-Driven, Bacterial Denitrification?\***

Nelson, Douglas C.  
(University of California, Davis)

**Effects of Damselish Activities on the Settlement, Recruitment, and Survival of Corals Under Different Environmental Conditions**

Sabat, Alberto M.  
(University of Puerto Rico)

**Effects of Nutrient Enrichment on Chemical Composition and Metabolic Rate of Corals from Impacted and Non-Impacted Environments**

Cook, Clayton B.  
(Harbor Branch Oceanographic Institution)

**Effects of Sludge Carbon Deposition on Benthic Metabolism, Macrofauna Activity and Redox Zonation**

Sayles, Frederick L.  
(Woods Hole Oceanographic Institution)

**Effects of Sludge Deposition on Benthic Populations in Deep-Sea Sediments of the Continental Rise in the Vicinity of Municipal Dumpsite - 106 (LEO-2500)**

Grassle, J. Frederick  
(Rutgers, The State University of New Jersey)

**Effects of Water Movement on Corals: Particle Capture, Prey Behavior, and Growth Rate\***

Sebens, Kenneth P.  
(University of Maryland)

**Environmental and Biological Aspects of Coral Reef Degradation in the Florida Keys: Algal and Bacterial Diseases of Corals\***

Richardson, Laurie L.

(Florida International University)

**EPA-Cape Arundel Dump Site Assessment**

Tomey, David  
(U.S. Environmental Protection Agency)

**Evaluation of Rates of Change in Bahamian Deep-Water (30-300M) Communities**

Liddell, W. David  
(Utah State University)

**Extensive Collections of Offshore Seaweed for Chemical and Ecological Compounds**

Hay, Mark E.  
(University of North Carolina at Chapel Hill)

**Field Support to Continue Long-term Sampling of Stressed Benthic Foraminiferal Populations in the Florida Keys\***

Hallock-Muller, Pamela  
(University of South Florida)

**Fungal Diseases of Sea Fans\***

Harvell, Drew C.  
(Cornell University)

**Gametogenic Ecology of a Deep-Sea Hydrothermal Vent Community**

Van Dover, Cindy Lee  
(University of Alaska, Fairbanks)

**Gas Hydrate Mounds: Sites of Metastable Seafloor and High Microbial Productivity**

Roberts, Harry H.  
(Louisiana State University)

**Genetic Determination of Different Species of Endosymbiotic Dinoflagellates and Specificity of Coral-Microbial Symbioses at Lee Stocking Island**

Reichman, Jay  
(University of Texas at Austin)

**Genetic Variation of *Montastrea cavernosa* along the Florida Keys Reef Tract\***

Sammarco, Dr. Paul  
(LUMCON)

**Growth and Productivity of *Ridgeia piscesae* and Trophic Interactions within Vestimentiferan Communities in Different Vent Environments**

Fisher, Charles R.  
(Pennsylvania State University)

**Habitat-Specific Differences in Sponge Growth: The Role of Scope for Growth and Phenotypic Plasticity\***

Patterson, Mark R.  
(VIMS - College of William and Mary)

**Human Pathogens in Canals and Confined Bodies of Water in the Florida Keys, Abundance and Human Health Risks\***

Rose, Joan B.  
(University of South Florida)

**Hydrothermal Activity in Yellowstone Lake, Wyoming and its Influence on the Distribution and Activity of Micro- and Macro-Organisms\***

Maki, James S.  
(Marquette University)

**Impact of Injection Wells and Septic Tanks on the Key Largo Reef Environment: Tracer Studies\***

Paul, John H.  
(University of South Florida)

***In Situ* Observations and Sampling of Contaminated Groundwater in the Florida Keys\***

Chanton, Jeffrey  
(Florida State University)

***In Situ* Observations of Coastal Upwelling and Sediment Transport in the Middle Atlantic Bight\***

Glenn, Scott M.  
(Rutgers, The State University of New Jersey)

***In Situ* Sediment-Water Exchange Process Studies in the Great Lakes**

Klump, J. Val  
(University of Wisconsin-Milwaukee)

**Interstitial Water, Thermal Gradient, and Submarine Discharge Studies in Onslow Bay**

Spivack, Dr. Arthur  
(University of North Carolina at Wilmington)

**Intraspecific Diversity and Ecological Zonation in Coral-Algae Symbiosis: A Comparison**

**tive Study**

Knowlton, Nancy  
(Smithsonian Tropical Research  
Institute)

**Investigation of Carbon Cycling on the Reef Tract in South Florida\***

Swart, Peter K.  
(University of Miami/RSMAS/  
MAC)

**Investigation of Deep Water Bank Accumulation at Log Transfer and Storage Facilities**

O'Clair, Charles  
(Auke Bay Fisheries Laboratory,  
NMFS)

**Investigation of Sedimentation in Ambrose Channel**

Bohlen, Dr. Frank W.  
(University of Connecticut, Avery  
Point)

**Investigation of the Biosynthetic Pathways in *Eudistoma olivaceum* and Other Caribbean Invertebrates in the Proximity of Lee Stocking Island, Bahamas**

Baker, William J.  
(Florida Institute of Technology)

**Investigations of the Chemical and Physical Defenses of Reef and Mangrove Demosponges\***

Pawlik, Joseph  
(University of North Carolina at  
Wilmington)

**Investigations of the Impact of Light Penetration and Water Column Stratification on Community Structure in the Gulf of Maine/Georges Bank**

Frank, Tamara M.  
(Harbor Branch Oceanographic  
Institution)

**Larval Biology and Gametogenesis in a Deep-Sea Community With Continuous Nutrient Input: Cold Seeps on the Louisiana Slope**

Young, Craig M.  
(Harbor Branch Oceanographic  
Institution)

**Levels and Biological Effects of Organic and Inorganic Contaminants in Caribbean****Scleractinian Corals**

Harrison, Peter  
(Southern Cross University)

**Limits of Bathymetric Distribution in Deep-Sea Echinoderms: the Role of Embryonic Pressure Tolerances**

Young, Craig M.  
(Harbor Branch Oceanographic  
Institution)

**Manned Submersible Reconnaissance of the Torpedoed Oil Tanker SS *Montebello***

Hunter, Jack  
(California Department of  
Transportation)

**Marine Cave and Crevicular Fauna of the Exuma Islands**

Iliffe, Thomas M.  
(Texas A&M University at  
Galveston)

**Mass Transfer in Corals: Effects of Turbulent Flow\***

Wetthey, David S.  
(University of South Carolina)

**Mechanisms of Destruction on Florida Coral Reefs\***

Reaka-Kudla, Marjorie  
(University of Maryland, College  
Park)

**Mechanisms of Preservation of Skeletal and Organic Remains and Death Assemblage Formation in Carbonate Shelf Sediments**

Powell, Eric N.  
(Texas A&M University)

**Mobile Predators at Northeast Pacific Vents**

Voight, Janet R.  
(The Field Museum)

**Molecular Assessment of the Effect of Ultraviolet Radiation on Coral Reef Microbial Ecology\***

Jeffrey, Wade H.  
(University of West Florida)

**Molecular Basis for Stable Carbon Isotope Discrimination in Hydrothermal Vent Ecosystems: A Survey of****Pacific Vent Symbioses**

Cavanaugh, Colleen M.  
(Harvard University)

**Monitoring of Benthic Faunal Responses to Sediment Removal Associated With the Carolina Beach and Vicinity-Area South Project**

Posey, Martin E.  
(University of North Carolina at  
Wilmington)

**Monitoring of Sewage-Derived Organic Material in Deep-Sea Food Webs at Dumpsite 106**

Van Dover, Cindy Lee  
(University of Alaska, Fairbanks)

**Monthly Hydrographic Surveys and Water Column Sampling Across the Shelf in Onslow Bay, NC**

Spivack, Dr. Arthur  
(University of North Carolina at  
Wilmington)

**Monthly Monitoring of Bioerosion and Nutrient Levels at Florida Keys Coral Reefs\***

Reaka-Kudla, Marjorie  
(University of Maryland, College  
Park)

**Origin of Particulate Matter and Distribution of HOC in Benthic Nepheloid Layer of Large Lakes**

Atkinson, Joseph F.  
(State University of New York at  
Buffalo)

**Patch Dynamics of Cerianthids and Its Consequences in Structuring Benthic Communities in the Gulf of Maine**

Watling, Leslie E.  
(University of Maine)

**Phenotypic Plasticity Among Tropical Reef Corals: Implications for Population Dynamics Under Changing Environmental Conditions\***

Edmunds, Peter J.  
(California State University,  
Northridge)

**Physical Oceanography of Exuma Sound**

Hickey, Barbara M.  
(University of Washington)

**Physiological and Biochemical Correlates of Bleaching****During a Natural Stress Event in the Florida Keys\***

Gleason, Dr. Daniel  
(Georgia Southern University)

**Phytoplankton Biomass at LEO-15 and the Calibration of *In Situ* Fluorometers**

Schofield, Oscar  
(Rutgers, The State University of  
New Jersey)

**Precision Sampling and Characterization of Lake Ontario Sediments Affected by Ship-Derived Wastes**

Brownawell, Bruce J.  
(State University of New York,  
Stony Brook)

**Predation by the Physonect Siphonophore *Nanomia cara***

Youngbluth, Marsh J.  
(Harbor Branch Oceanographic  
Institution)

**Productivity, Longevity and Life Histories of Vestimentiferans and Mussels at Cold Seeps in the Gulf of Mexico**

Fisher, Charles R.  
(Pennsylvania State University)

**Rapid Response Project: Rhode Island Oil Spill**

NURC-UCAP  
(University of Connecticut -  
Avery Point)

**Rapid Response Projects in the Florida Keys: Support for Coral Reef Research from Key Largo Support Base\***

Miller, Steven L.  
(University of North Carolina at  
Wilmington)

**Rapid Response Projects in the South Atlantic Bight: Post-Hurricane Investigations and Collaborative Projects with other NURP Centers**

Shepard, Andrew  
(University of North Carolina at  
Wilmington)

**Rates and Magnitudes of Trace Metal Redistribution in Sediments Following the End of Sludge Dumping at the 106-Mile Site**

Bothner, Michael H.  
(United States Geological Survey  
at Woods Hole)

**Real-Time Acoustic Imaging of the Bottom and Bottom**

### **Boundary Layer at the LEO-15 Site\***

Irish, James D.  
(Woods Hole Oceanographic Institution)

### **Regional Variability in the Impact of Internal Bores on Florida Coral Reefs\***

Denny, Mark W.  
(Stanford University)

### **Remote Investigations and Sampling of Epibenthic Particle Accumulation in the Columbia River Estuary Turbidity Maximum**

Simenstad, Charles  
(University of Washington)

### **Reproductive Biology and the Limits of Bathymetric Distribution in Lithistid Sponges and Stalked Crinoids**

Young, Craig M.  
(Harbor Branch Oceanographic Institution)

### **Reproductive Success of Broadcast Spawning Gorgonians\***

Lasker, Howard R.  
(State University of New York at Buffalo)

### **Reproductive Success, Larval Dispersal, and Recruitment of an Endangered Sea Star *Oreaster reticulatus***

Scheibling, Robert E.  
(Dalhousie University)

### **ROV Habitat Characterization of Gray's Reef NMS\***

Score, David  
(Gray's Reef National Marine Sanctuary)

### **ROV Mapping of Benthic Habitats and Communities at McMurdo Station, Antarctica**

Oliver, John S.  
(Monterey Bay Aquarium Research Institute/Moss Landing)

### **ROV Support for Long-term Monitoring in Gray's Reef National Marine Sanctuary\***

Bohne, Reed M.  
(Gray's Reef National Marine Sanctuary, NOAA/NOS/OCRM)

### **Sea Urchins in Seagrasses: An Experimental Examination of the Impact of Chronic Sea**

### **Urchin Grazing on the Turtlegrass Habitats in the Florida Keys\***

Valentine, John F.  
(University of South Alabama)

### **Seasonal Monitoring of Tissues of Four Species of Caribbean Reef Corals\***

Fitt, William K.  
(University of Georgia)

### **Seasonal Monitoring of Zooxanthellae Size, Biomass, and Energetic Content in Reef Building Corals**

Kempf, Stephen  
(Auburn University)

### **Seasonal Patterns in Tissue Biomass and Zooxanthellae in Floridean Corals\***

Fitt, William K.  
(University of Georgia)

### **Seasonal Variation in a Zooxanthellate Reef Coral and Fire Coral and Effect of Transplantation**

Fitt, William K.  
(University of Georgia)

### **Sediment Irrigation and Benthic Fluxes on the Continental Margin, N.W. Atlantic**

Martin, William R.  
(Woods Hole Oceanographic Institution)

### **Sedimentary and Fluid Dynamics on the Shoreface and Inner Shelf off Wrightsville Beach, North Carolina**

Pilkey, Orrin H. Jr.  
(Duke University)

### **Selfing, Outcrossing, and Fertilization Success in Hermaphroditic Reef-Building Corals\***

Gleason, Daniel F.  
(University of Houston)

### **Sourcing and Isolation of Marine Microorganisms for Drug Discovery**

LaRoche, Elizabeth  
(Phytera, Inc.)

### **Spatial and Temporal Variability in On-Shore Flux: Pulsed Delivery of Nutrients, Plankton and Larvae to**

### **Conch Reef by Internal Waves\***

Denny, Mark W.  
(Stanford University)

### **Spatial Heterogeneity and Coral Recruitment: Ecological Implications and Physiological Adaptations\***

Edmunds, Peter J.  
(California State University, Northridge)

### **Structure, Succession and Phylogenetic Affinities of Deep-Sea Whale-Fall Communities on the Northeast Pacific Slope**

Smith, Craig R.  
(University of Hawaii/Oceanography)

### **Submersible Survey of Benthos at the Proposed A-J Mine Submarine Tailings Disposal Site**

Stekoll, Michael  
(Juneau Center, School of Fisheries & Ocean Sciences, Univ. of Alaska-Fairbanks)

### **Suboxic/Anoxic Diagenesis in Reef Frameworks and Resulting Nutrient Fluxes\***

Sansone, Francis J.  
(University of Hawaii/Soest/Oceanography)

### **The Bleaching Response of the Reef Building Coral *Montastraea annularis* Containing Different Zooxanthellae Genotypes\***

Wellington, Gerard M.  
(University of Houston)

### **The Dynamics of Oxygen Uptake by Shelf Sediments\***

Reimers, Clare E.  
(Rutgers, The State University of New Jersey)

### **The Effect of Florida Bay Waters on Coral Growth on the Florida Keys\***

Swart, Peter K.  
(University of Miami/RSMAS/MAC)

### **The Effect of Small Scale Temporal and Spatial Variation in the Environmen-**

### **tal Factors Causing Coral Bleaching\***

Edmunds, Peter J.  
(California State University, Northridge)

### **The Effects of Nutrient Loading on Growth of Halimeda\***

Laing, Katie  
(University of North Carolina at Wilmington)

### **The Effects of Sponges on Water Column Processes: Implications for the Management of Coral Reefs\***

Patterson, Mark R.  
(VIMS - College of William and Mary)

### **The Historical Influence of the Output from Florida Bay on the Growth of Corals of the Florida Reef Tract\***

Swart, Peter K.  
(University of Miami/RSMAS/MAC)

### **The No-Take Zones of the Florida Keys National Marine Sanctuary: An Inter-Disciplinary Study of the Dynamics of Coral Reef Benthic Communities\***

Ogden, John C.  
(Florida Institute of Oceanography)

### **The Photic Ecology of Coral Reef Environments and the Impact of Human Activity Upon It\***

Cronin, Thomas W.  
(University of Maryland, Baltimore County)

### **The Role of Resuspended Beach Sediments on Coral Reef Stress and Health: Implications for Management of Coral Reef Ecosystems\***

Patterson, Mark R.  
(VIMS - College of William and Mary)

### **The Sediment 'Reference Concentration' Distribution at LEO-15 and Its Relationship to Waves and Currents\***

Agrawal, Yogesh C.  
(Sequoia Scientific Inc.)

### **The Use of Seagrasses to Determine the Sources of**

**Natural and Anomalous Nutrient Inputs in the Florida Keys Marine Sanctuary: Phase II-Year 2\***

Zieman, Joseph C.  
(University of Virginia)

**Time Series of High Resolution Observations of Gradients in Pigment Fluorescence at LEO-15 Using a Multi-Sensor Fiber Optic Fluorometer\***

Lohrenz, Steven E.  
(University of Southern Mississippi, Stennis Space Center)

**Ultraviolet Radiation Induced DNA Damage in Coral Reef Microbial Communities\***

Jeffrey, Wade H.  
(University of West Florida)

**Upper Keys Reef Tract Circulation Study\***

Smith, Ned P.  
(Harbor Branch Oceanographic Institution)

**Utility of ROV's for the Identification and Assessment of Marine Anthropogenic Debris at McMurdo Station, Antarctica**

Kvitek, Dr. Rikk  
(Moss Landing Marine Labs)

**UV Light Monitoring\***

Wellington, Gerard M.  
(University of Houston)

**Variability and Sources of Trace Metals in the Inner Shelfwater Column, New York Bight\***

Sherrell, Robert M.  
(Rutgers, The State University of New Jersey)

**Outreach/ Education**

**Bringing the Ocean into the Precollege Classroom Through Field Investigations at a National Underwater Laboratory\***

De Luca, Michael  
(Rutgers, The State University of New Jersey)

**Cooperative Engineering Education Projects**

Rae, Graeme  
(Florida Institute of Technology)

**Ecological and Physiological Studies of Polyunsaturated**

**Fatty Acid Metabolism in Marine Macrophytic Chlorophytes**

Jacobs, Robert  
(University of California, Santa Barbara)

**Education Opportunities for Students in Summer Ventures in Science and Mathematics**

Hall, Jack  
(University of North Carolina at Wilmington)

**Filming of the HMS *Britannic* in the Mediterranean**

Ballard, Dr. Robert  
(WHOI)

**Great Lakes Book Project**

NURC-UCAP  
(University of Connecticut - Avery Point)

**Jason Project\***

Ballard, Dr. Robert  
(WHOI)

**Jason VII: Adapting to a Changing Sea**

Ballard, Dr. Robert  
(WHOI)

**Marine Education: Field Experiences for Gifted High School Students and Diver Training for Minority Undergraduates\***

Shepard, Andrew  
(University of North Carolina at Wilmington)

**NOAA/NITROX Diver Training Seminar with Savannah State College and Gray's Reef National Marine Sanctuary\***

Bohne, Reed M.  
(Gray's Reef National Marine Sanctuary, NOAA/NOS/OCRM)

**NURC/CT DEP Long Island Sound Cooperative Research Program**

Auster, Peter J.  
(University of Connecticut, Avery Point)

**Operation Pathfinder: Hands-on Science for Middle School Teachers**

Spence, Lundie  
(North Carolina State University)

**Pathfinder: Reconnaissance Diving on Loihi to Determine Safe and Optimum Dive Sites**

Malahoff, Alexander  
(University of Hawaii)

**Summer Ventures: Hands-on Science for High School Students and Teachers**

Shafer, Karen  
(University of North Carolina at Wilmington)

**The Aquanaut Program\***

Babb, Ivar  
(University of Connecticut - Avery Point)

**Predicting Environmental Change**

**A Decadal and Centennial Scale Record of Shallow Thermocline/Sea Surface Temperature From Calcifying Sponges, Exuma Sound, Bahamas**

McNeill, Donald F.  
(University of Miami)

**Active Faulting on the Oregon and Washington Continental Shelf: Implications for Earthquake Potential and Crustal Rotation**

Kulm, LaVerne D.  
(Oregon State University)

**Age-dependent Mixing of Deep-Sea Sediments: A Test of Predictions on the Hawaiian Slope**

Smith, Craig R.  
(University of Hawaii/Oceanography)

**Applications and Refinement of Seafloor Geodetic Techniques on the Juan De Fuca Ridge**

Spiess, Fred N.  
(University of California, San Diego)

**Assessing the Recent Volcanic History and Geology of the Hydrothermal Vents at the Summit of Loihi Seamount**

Garcia, Michael O.  
(University of Hawaii/Geology & Geophysics)

**Chemical Monitoring of Hydrothermal Venting on Loihi Seamount, Hawaii**

McMurtry, Gary M.  
(University of Hawaii/Oceanography)

**Climate Records from Hawaiian Deep-Sea Corals**

Dunbar, Robert B.  
(William Marsh Rice University)

**Development of Eastern Caribbean Shelf-Edge Reefs: Implications for Carbonate Platform Development and Reef Drowning**

Hubbard, Dennis K.  
(University of New Orleans)

**Extent and Depth of Landsliding on the Submarine North Flank of Molokai**

Holcomb, Robin T.  
(United States Geological Survey at Seattle)

**Geologic Framework of Outer Shelf-Upper Slope Carbonate Structures, Northeast Gulf of Mexico: Implications for Lake Quaternary Eustatic Sea Level Fluctuations and Regional Climate/Paleoecological Variability**

Schroeder, William W.  
(University of Alabama)

**Hydrothermal Vent and Fluid Chemistry at Loihi Seamount, Hawaii**

McMurtry, Gary M.  
(University of Hawaii/Oceanography)

**In Situ Collection and Monitoring of Natural Gas Hydrate by Use of the Johnson-Sea-Link**

MacDonald, Ian R.  
(Texas A&M University at College Station)

**In Situ Microelectrode Measurements in the Great Lakes**

Reimers, Clare E.  
(Rutgers, The State University of New Jersey)

**In Situ Sampling of Outcropping Glacial and Glaciomarine Sediments and Sedimentary Bedforms in the Gulf of Maine**

Belknap, Daniel F.  
(University of Maine)

**Loihi Post-Crisis**

Cowen, James P.  
(University of Hawaii/Soest/Oceanography)

**Modified Side-Scan Sonar Imaging of Carbonate Platform Margins: A Skewed View**

Boss, Stephen  
(University of Arkansas)

**New Lessons on the Relationships between Magmatic Processes, the Subsurface Biosphere and the Ocean at an Intra-Transform Extensional Basin: Blanco Fracture Zone, Northeast Pacific**

Embley, Robert W.  
(United States Department of Commerce/NOAA/PMEL, Newport)

**Origin and Emergence of Mendocino Ridge**

Fisk, Martin R.  
(Oregon State University)

**Preservation of Skeletal and Organic Remains and Death Assemblage Formation in Continental Shelf and Slope Sediments, Gulf of Mexico**

Powell, Eric N.  
(Texas A&M University)

**Quaternary Development of the Florida Keys Carbonate Platform-Relative Influence of Sealevel Fluctuations and Geostrophic Currents along a Windward Margin\***

Toscano, Marguerite A.  
(University of South Florida)

**Submarine Hyaloclastites on Loihi Volcano: Eruption Dynamics and Fragmentation Mechanisms in the Depth Transition to Explosive Eruptions**

Batiza, Rodey  
(University of Hawaii/Geology & Geophysics)

**Submerged Habitat and Lake-Level Fluctuations in Lake Malawi**

Kornfield, Dr. Irv  
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Goldfinger, Chris  
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Blair, Neal  
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Wicklund, Robert  
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Block, Barbara  
(Hopkins Marine Station)

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Carr, Mark  
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*Antillarum*  
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**Assessment of Benthic and Benthopelagic Predator Fauna on Georges Bank**

Madin, Lawrence P.  
(Woods Hole Oceanographic Institution)

**Collection of Eel *Leptocephali* for Determination of Gycosamino-Glycan Composition**

Pfeiler, Edward  
(Instituto Tecnológico Y Estudios Superiores De Monterrey Institution)

**Control of Recruitment of the Surf Clam, *Spisula solidissima*, and Other Benthic Species of Continental Shelf Habitats\***

Grassle, Judith P.  
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**Coupling of Gulf Stream Water Intrusions and Arrival of Pre-Settlement Stages of Snapper-Grouper Species at a Mid-Shelf Reef, Onslow Bay, NC**

Lindquist, David G.  
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**Detection of Actively Used Lake Trout Spawning Reefs and Assessment of Egg and Larval Vulnerability to Sculpins**

Janssen, John  
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**Development of Mating Aggregations of Tanner Crab, "*Chionoecetes bairdi*"**

Stevens, Bradley G.  
(United States Department of Commerce/NOAA/NMFS/AFDC - Kodiak)

**Dispersal and Population Genetics of Seamount Benthos**

France, Scott C.  
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**Ecology of Deep Water American Lobster (*Homarus americanus*): Distribution, Habitat Utilization and Recruitment Processes**

Steneck, Robert S.  
(University of Maine)

**Effects of Early Summer Upwelling and Downwelling on Surfclam Settlement at LEO-15\***

Grassle, Judith P.  
(Rutgers, The State University of New Jersey)

**Effects of Scallop Dredging on Benthic Communities of Georges Bank**

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**Effects of Trawling on the Sediment Microbiota of Stellwagen Bank\***

Cahoon, Lawrence B.  
(University of North Carolina at

Wilmington)

**Elevated Invertebrate and Fish Production in Submarine Canyons: Effects of Macrophyte Detritus**

Dayton, Paul K.  
(University of California, San Diego)

**Experimental Analysis of Recruitment Processes in Queen Conch: Metamorphosis and Early Juvenile Growth\***

Stoner, Allan W.  
(Caribbean Marine Research Center)

**Fish Nursery Habitats on the New York Bight Continental Shelf\***

Cowen, Robert K.  
(State University of New York at Stony Brook)

**FORECAST - Larval Ecology and Recruitment Dynamics in the Queen Conch**

Stoner, Allan W.  
(Caribbean Marine Research Center)

**FORECAST - Recruitment and Metapopulation Dynamics in the Caribbean Spiny Lobster and Nassau Grouper**

Lipcius, Romuald N.  
(VIMS, College of William and Mary)

**Habitat Alteration Due to Mobile Fishing Gear: A Temporal Study of Selected Sites in the Gulf of Maine**

Watling, Leslie E.  
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**Identifying the Brook Stock for Coastal Populations of the American Lobster (*Homarus americanus*)**

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**In Situ Observations on the Distribution and Behavior of Juvenile and Adult Walleye Pollock (*Theragra chalcogramma*) in Relation To Oceanographic Conditions in the Bering Sea**

Brodeur, Richard D.  
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**In Situ Quantification of Zooplankton Aggregation Mechanisms using the Jason ROV on Georges Bank**

Davis, Cabell S.  
(Woods Hole Oceanographic Institution)

**Investigation of Insular Slope Fishery Habitats off Oahu and Identification of Bottomfish Nursery Grounds in Relation to Coastal Discharge**

Grau, E. Gordon  
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**Juvenile Sturgeon Habitat Use in the Hudson River**

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**Marine Tropical Ornamental Fish Aquaculture Technology and Impact of Eel Predation on Newly Recruited Coral Reef Fishes**

Shenker, Jonathan M.  
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**Movements of Fishes Associated With Natural Refugia in Monterey Bay: Implications for Marine Reserves in Fishery Management\***

Starr, Richard M.  
(Moss Landing Marine Laboratory)

**NMFS Bluefin Tuna Survey off Cape Hatteras, NC**

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Auster, Peter J.  
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**Population Ecology of Great Barracuda in the Florida Keys National Marine Sanctuary\***

Helfman, Gene S.  
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**Positive Feedback Mechanisms Among Seagrasses, Sediment Nutrients and Fish Recruitment to Reef Structures**

Nelson, Walter  
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**Predatory Roles of Siphonophores in Monterey Bay: Implications for Marine Reserves in Fishery Management\***

Youngbluth, Marsh J.  
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**Recruitment and Population Dynamics of Coral-Reef Fishes: A Multifactorial Analysis**

Hixon, Mark A.  
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**Recruitment to Sargassum by Mobile Sub-Adult Pelagic Fishes**

Moser, Mary L.  
(University of North Carolina at Wilmington)

**Recruitment, Metapopulation Dynamics, and Stock Enhancement of the Caribbean Spiny Lobster**

Lipcius, Romuald N.  
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**Reproductive Strategies and**

**Their Contribution to Gene Flow and Population Recruitment in the Commercially Important Squid *Loligo pealei***

Hanlon, Dr. Roger T.  
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**Ringed Seal Diving Behavior and Prey Distribution**

Kelly, Brendan  
(University of Alaska, Fairbanks)

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Witman, Jon D.  
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**Seaweed Beds as Critical Habitats for Recruiting Fishes on Temperate Reefs\***

Hay, Mark E.  
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**Seaweed-Coral-Herbivore Interactions on Coral Reefs\***

Hay, Mark E.  
(University of North Carolina at Chapel Hill)

**Spawning and Recruitment in Gag (*Mycteroperca microlepis*): Rapid Identification and Location of Spawning Grounds**

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(South Carolina Marine Resources Research Institute)

**Subtidal Landscapes: The Role of Habitat Variability on the Distribution of Fishes and Associated Fauna\***

Auster, Peter J.  
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**The Cape Hatteras Gulf Stream Front as an Aggregator of the Pelagic Stages of Tuna and Mackerel: Sampling with Light-Traps**

Lindquist, David G.  
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**The Effects of Fishing on the Structure and Function of Spawning Aggregations of Gag (*Mycteroperca microlepis*) and Scamp (*M. phenax*) in the Atlantic and Gulf of Mexico**

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**The Southern California White Abalone Stock Assessment Survey**

Davis, Gary E.  
(United States Biological Service)

**Use of a Novel Gear Type to Evaluate the Association of Juvenile Scombroids with the Gulf Stream Front**

Hare, Dr. Jonathan  
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**Construction, Testing and Calibration of a Drag Balance for Direct Measurements of Bottom Shear Stress\***

Rankin, Kelly L.  
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**Data Communications Upgrades for ZAPS-Towed Fiberoptic Fluorometer Sled**

Collier, Robert W.  
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Milburn, Hugh B.  
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Wiley, Dr. David  
(International Wildlife Coalition)

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(University of California, Santa  
Barbara)

**Dive Survey and Recovery of  
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Broadwater, John  
(U.S. Department of Commerce,  
Monitor National Marine  
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**Diver Recovery of Instrument  
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Kinder, Dr. Jeff  
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Tusting, Robert F.  
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Institution)

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Dinsmore, David A.  
(University of North Carolina at  
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Prisloe, Sandy  
(Envirographics)

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Dunnebie, Fred  
(University of Hawaii)

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Rona, Peter A.  
(Rutgers, The State University of  
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Kadko, David  
(University of Miami)

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Babb, Ivar  
(University of Connecticut -  
Avery Point)

**NURC/MIT Stellwagen Bank  
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Auster, Peter J.  
(University of Connecticut, Avery  
Point)

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Klimley, A. Peter  
(University of California, Davis)

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Von Alt, Christopher  
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Starr, Richard M.  
(Moss Landing Marine Labora-  
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Lewis, Dr. Quentin  
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MacDonald, Ian R.  
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Kinder, Dr. Jeff  
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Malahoff, Alexander  
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Donaldson, Paul L.  
(University of Connecticut, Avery  
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**Transport Monitoring Using  
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Larsen, Jimmy C.  
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